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[Continued on next page]

(54) Title: ANTI-CD38 HUMAN ANTIBODIES AND USES THEREFOR

Variable Heavy Chain DNA

3077_VH1B (SEQ ID NO: 1):

(1) CAGGTGCAAT TGGTTCAGAG CGGGCGGAA GTGAAAAAAAC CGGGCGGAG
(51) CGTGAAGTGC AGCTGCAAAG CCTCCGGATA TACCTTTACT TCTTATTCTA
(101) TTAAATGGGT CCTGCCAAGCC CCTGGGAGG GTCTCGAGTG GATGGGGTAT
(151) ATCGATCGGA ATCGTGGCA TACGAATTAC CGCCAGAAGT TTCAAGGCCG
(201) GGTGACCATG ACCGGTGATA CCAGCATTAG CACCGGTAT ATGGAACCTGA
(251) GCGACCTGG TAGCGAGAT ACCGGCGTGT ATTATTGCGC GCGTGACTAT
(301) ATTATTTTTA TTCACTGGTAT GCTTGATTTC TGGGGCAAG GCACCTGGT
(351) GACGGTTAGC TCA

3079_VH3 (SEQ ID NO: 2):

(1) CAGGTGCAAT TGGTGGAAAG CGGGCGGCGC CTGGTGCAAC CGGGCGGAG
(51) CCTGGCTCTG AGCTGCGCG CCTCCGGATT TACCTTTCTT TCTTATGGTA
(101) TGCAATTGGGT GCGCCAAAGCC CCTGGGAAGG GTCTCGAGTG GGTGAGCAAT
(151) ATTCGTTCTG ATGGTAGCTA TACCTTTTAT GCGGATAGCG TGAAAGGCCG
(201) TTTCACCAIT TCACGTGATA ATTCAAAAAA CACCCGTAT CTGCAATATGA
(251) ACAGCCTGGG TGCGGAAGAT ACCGGCGTGT ATTATTGCGC GCGTAATATG
(301) TGGCTGAGT CTCATGCTTC TGTTACTGAT TATTGGGGCC AAGGCCACCT
(351) GGTGACGGT AGCTCA

3080_VH3 (SEQ ID NO: 3):

(1) CAGGTGCAAT TGGTGGAAAG CGGGCGGCGC CTGGTGCAAC CGGGCGGAG
(51) CCTGGCTCTG AGCTGCGCG CCTCCGGATT TACCTTTCTT TCTTATGGTA
(101) TGCAATTGGGT GCGCCAAAGCC CCTGGGAAGG GTCTCGAGTG GGTGAGCAAT
(151) ATTCGTTCTG ATGGTAGCTA TACCTTTTAT GCGGATAGCG TGAAAGGCCG
(201) TTTCACCAIT TCACGTGATA ATTCAAAAAA CACCCGTAT CTGCAATATGA
(251) ACAGCCTGGG TGCGGAAGAT ACCGGCGTGT ATTATTGCGC GCGTAATATG
(301) TGGCTGAGT CTCATGCTTC TGTTACTGAT TATTGGGGCC AAGGCCACCT
(351) GGTGACGGT AGCTCA

3100_VH 3 (SEQ ID NO: 4):

(1) CAGGTGCAAT TGGTGGAAAG CGGGCGGCGC CTGGTGCAAC CGGGCGGAG
(51) CCTGGCTCTG AGCTGCGCG CCTCCGGATT TACCTTTCTT TCTTATGGTA
(101) TGCAATTGGGT GCGCCAAAGCC CCTGGGAAGG GTCTCGAGTG GGTGAGCAAT
(151) ATTCGTTCTG ATGGTAGCTA TACCTTTTAT GCGGATAGCG TGAAAGGCCG
(201) TTTCACCAIT TCACGTGATA ATTCAAAAAA CACCCGTAT CTGCAATATGA
(251) ACAGCCTGGG TGCGGAAGAT ACCGGCGTGT ATTATTGCGC GCGTAATATG
(301) TGGCTGAGT CTCATGCTTC TGTTACTGAT TATTGGGGCC AAGGCCACCT
(351) GGTGACGGT AGCTCA

3077_1_VH1B (SEQ ID NO: 31):

(1) CAGGTGCAAT TGGTGGAAAG CGGGCGGCGC CTGGTGCAAC CGGGCGGAG
(51) CGTGAAGTGC AGCTGCAAAG CCTCCGGATA TACCTTTACT TCTTATTCTA

(57) Abstract: The present invention provides recombinant antigen-binding regions and antibodies and functional fragments containing such antigen-binding regions that are specific for CD38, which plays an integral role in various disorders or conditions. These antibodies, accordingly, can be used to treat, for example, hematological malignancies such as multiple myeloma. Antibodies of the invention also can be used in the diagnostics field, as well as for investigating the role of CD38 in the progression of disorders associated with malignancies. The invention also provides nucleic acid sequences encoding the foregoing antibodies, vectors containing the same, pharmaceutical compositions and kits with instructions for use. The invention also provides isolated novel epitopes of CD38 and methods of use therefore.

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